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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,427	03/06/2001	Yoshinobu Komatsu	SPO-590	1329

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06/06/2003

Sherman & Shalloway
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Alexandria, VA 22314

EXAMINER

LANGEL, WAYNE A

ART UNIT

PAPER NUMBER

1754

DATE MAILED: 06/06/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

786427

Applicant(s)

Komatsu et al

Examiner

Langel

Group Art Unit

1754

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☐ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1, 2, 11 and 16-42 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1, 2, 11 and 16-42 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☒ All ☐ Some* ☐ None of the:
 - ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
- ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 11, 16-20, 24-27 and 31-42 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Woltermann. No distinction is seen between the process and composition disclosed by Woltermann, and that recited in applicant's claims. Regarding claim 11, Woltermann discloses in Example 1 that a slurry of zinc oxide and aluminum nitrate in water was heated at a temperature of 90°C at a pH of 3.6 to 4.0. No distinction is seen between this process, and the process steps recited in applicant's claim 11. The

composition produced according to the method of Woltermann would inherently exhibit the diffraction peaks as recited in applicant's claim 1, since the composition is prepared in the same manner. Regarding claim 16, Woltermann discloses in the sentence bridging columns 1 and 2 that the composition may contain magnesium as a divalent metal. Regarding claims 19 and 20, Woltermann discloses at column 2, lines 6-11 that the anion in the composition may be carbonate or sulfate. Regarding claims 31-42, the composition of Woltermann is considered to constitute an additive for resins, a heat insulator, or an anion-exchanger.

Claims 21-23 and 28-30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Woltermann. Woltermann is relied upon as discussed hereinbefore. The specific anions recited in these claims would be prima facie obvious over Woltermann, since Woltermann discloses at column 2, lines 7 and 8 that the anion is an anion "such as" nitrate, chloride, carbonate, sulfate and so on. Accordingly Woltermann contemplates the use of any suitable anion, and it would be within the skill of one of ordinary skill in the art to determine suitable anions which could be employed as the anion in the composition of Woltermann, other than nitrate, chloride, sulfate or carbonate.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) The invention was described in (1) an application for patent, published under Section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 11, 16-20, 24-27 and 31-42 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bhattacharyya. No distinction is seen between the process and composition disclosed by Bhattacharyya, and that recited in applicant's claims. Regarding claim 11, Bhattacharyya discloses a method for producing a hydrotalcite-like clay containing zinc and aluminum. (See column 3, line 41 - column 5, line 52.) Bhattacharyya discloses in Example 1 that a pH of 10.6, which was then adjusted to 8.25, was utilized at a temperature of 85°C. No distinction is seen between this process, and the process steps recited in applicant's claim 11. The composition produced according to the method of Bhattacharyya would inherently exhibit the diffraction

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peaks as recited in applicant's claim 1, since the composition is prepared in the same manner. Regarding claim 16, Bhattacharyya teaches at column 4, lines 20 and 21 that magnesium may function to control the acidity or basicity of the catalyst. Regarding claims 19 and 20, Bhattacharyya discloses at column 4, lines 25-31 that the anion in the composition may be carbonate or sulfate. Regarding claims 31-42, the composition of Bhattacharyya is considered to constitute an additive for resins, a heat insulator, or an anion-exchanger.

Claims 21-23 and 28-30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bhattacharyya. Bhattacharyya is relied upon as discussed hereinbefore. The specific anions recited in these claims would be prima facie obvious over Bhattacharyya, since Bhattacharyya implies at column 4, lines 25-31 that the anionic species A may be any anion which would provide structural integrity by forming pillars or linkages between cationic layers of the clay. It would be within the skill of one of ordinary skill in the art to determine suitable anions which would meet this criteria of Bhattacharyya, other than those specifically listed at column 4, lines 25-31.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne A. Langel whose telephone number is (703) 308-0248. The examiner

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can normally be reached on Monday through Friday from 8 A.M. to 3:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on (703) 308-3837. The fax phone number for this Group is (703) 305-7718.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2351.

WAL:cdc

June 4, 2003

Wayne A. Langel
WAYNE A. LANGEL
PRIMARY EXAMINER